

Nebraska Resources Newsletter

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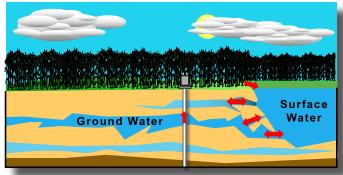
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The Joint Action Plan Process

By Tina Kurtz

Integrated management of surface and ground water has become a topic of increasing interest throughout the state over the past several years. In 1996, as part of LB108, the



Nebraska Legislature approved a process, known as the joint action plan, to address integrated management. This process has been incorporated into the Nebraska Ground Water Management and Protection Act as § 46-656.28. It consists of the development of a plan to manage hydrologically connected surface water and ground water, jointly prepared by the Department of Natural Resources (DNR) and a Natural Resources District (NRD).

The joint action plan process begins when an NRD determines that action needs to be taken in the management of interconnected surface water and ground water. The NRD then makes a written request to the DNR for a

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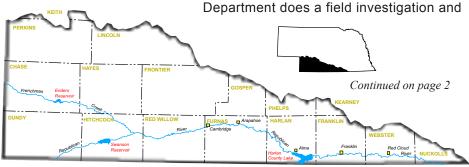
Republican River Basin Adjudications

By Susan France

As part of its ongoing adjudication program, the Department of Natural Resources recently investigated approximately 350 individual surface water appropriations located on the mainstem of the Republican River and its tributaries starting at Cambridge and continuing downstream to the state line. This investigation resulted in approximately 250 water appropriations being called to hearing because of total or partial non-use.

There were four sets of hearings. Hearings were held in Arapahoe, Alma, Franklin, and Red Cloud. It took approximately 15 days to complete all 250 hearings.

Adjudication of water rights are required under Nebraska law. The Department is required to check into water rights to determine whether all or part of the water right should be cancelled for non-use. First the



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preliminary determination of whether the use of hydrologically connected ground water and surface water resources is contributing to or is in the reasonably foreseeable future likely to contribute to: 1) conflicts between ground water users and surface water appropriators, 2) disputes over interstate compacts or decrees, or 3) difficulties fulfilling the provisions of other formal state contracts or agreements. Once the NRD has made this request, they have the option to implement a temporary suspension of well drilling for an initial period not to exceed three years, with the potential for a two-year extension. If the Director of the DNR does make a preliminary determination that the use of hydrologically connected ground water and surface water is or is likely to contribute to conflicts, disputes, or difficulties, the DNR will then conduct or coordinate a study to determine the cause of the conflict, dispute, or difficulties and the extent of the area affected.

When the study has been completed, the Director will determine whether the conflicts, disputes, or difficulties, could be eliminated or reduced through increased monitoring and regulation of ground water and surface water use. If so, the DNR will consult with both the affected surface water appropriators and the NRD within 30 days of issuing the study report. The DNR will then hold a hearing within 90 days of the report on the conclusions of the study and hear testimony on whether or not a joint action plan should be prepared. Within 90 days of the hearing, the NRD will determine whether to proceed with developing a joint action plan for integrated management. If so, the NRD completes the ground water portion of the plan and the DNR completes the surface water portion of the plan, all within one year of the NRD's resolution to proceed with the plan. When developing their portion of the plan, the NRD must determine that the designation of a management area and adoption of the joint action plan would be in the public interest. When the plan is complete, the NRD will hold a hearing within 60 days on the plan itself. Within 90 days after the hearing, the NRD will determine whether to designate a management area, and if so, will adopt the joint action plan. The controls on ground water and surface water will take effect within 90 days of the establishment of the management area. The ground water controls will be implemented by the NRD and the surface water controls will be implemented by the DNR.

Currently the Upper Republican NRD (URNRD), Middle Republican NRD (MRNRD), Lower Republican NRD (LRNRD), Tri-Basin NRD (TBNRD), North Platte NRD (NPNRD), and the Upper Niobrara White NRD (UNWNRD) are in various stages of the joint action plan process. The Republican NRDs (URNRD,

MRNRD, and LRNRD) along with the TBNRD initially requested and received a preliminary determination that the use of hydrologically

NPNRD NRD NRD NRD LENRD LENRD

connected surface water and ground water is or is likely

Adjudications Continued from page 1

Department does a field investigation and the investigators write a report. The investigator is to determine whether all or part of the lands have been irrigated within the last three years. If it is found that part or all of the water right has not been used, a hearing is required. At the hearing, the appropriators or users of the water right are requested to appear to determine if the Department's report is accurate and to give any reasons for the non-use. The law does expressly grant certain excusable reasons for non-use. All excusable reasons for non-use except one are valid for a period of not more than 10 years.

Excusable reasons are:

- **a.**The land subject to the appropriation was placed under an acreage reserve or production quota program or otherwise withdrawn from use as required for participation in any federal or state program;
- **b.** Federal, state, or local laws, rules, or regulations temporarily prevented or restricted such use;
- **c.** The available water supply was inadequate to enable the owner to use water for a beneficial or useful purpose;
- **d.** Use of the water was unnecessary because of climate conditions;
- **e.** Circumstances were such that a prudent person, following the dictates of good husbandry, would not have been expected to use the water:
- **f.** The works, diversions, or other facilities essential to use of the water were destroyed by a cause not within the control of the owner of the appropriation and good faith efforts to repair or replace the works, diversion, or facilities have been and are being made;
- g. The owner of the appropriation was in active involuntary service in the armed forces of the United States or was in active voluntary service during a time of crisis; or h. Legal proceedings prevented or restricted use of water.

The one excuse for non-use that can exceed the 10-year period is if a landowner of any tract of land uses all the available water supply on only part of the land under the appropriation because of an inadequate water supply. In such instances, the water right for the entire farm can be left in effect.

Director, Roger Patterson has already issued certain orders as a result of the hearings and other orders will follow.

Large Area Map Initiative

For more than 35 years, the Nebraska State Legislature has given NDNR (and its predecessor agency, the Natural Resources Commission) the responsibility of coordinating all aspects of floodplain management within the state. As part of that floodplain management coordination, NDNR has been responsible for mapping floodplains and coordinating mapping efforts in regions where floodplain maps are not adequate. The Legislature provided the following criteria for assessing floodplain-mapping needs:

- 1. Potential for future development
- 2. Potential for flood damage or loss of life
- 3. Probability that adequate data and maps will be prepared within a reasonable time by other sources
- 4. Availability and adequacy of any existing maps
- 5. Availability of flood data and other information necessary to produce adequate maps
- 6. Degree of interest shown by the local governments in the area in utilizing flood data and maps in an effective floodplain management program.

In 1998, 53 of Nebraska's 93 counties had no countywide floodplain maps. At that time an effort was undertaken to have all of them mapped within 10 years. Out of that effort the Nebraska Large Area Mapping Initiative (LAMI) was born. The

Nebraska Department of Natural Resources (NDNR) has developed a process for using a geographic information system (GIS) to map Approximate Zone A (1% probability) floodplains of large rural unmapped areas in Nebraska.

Maps Existing in 2000 2000-2003 CTP Counties **Unmapped Nebraska Counties** Other Recent Projects

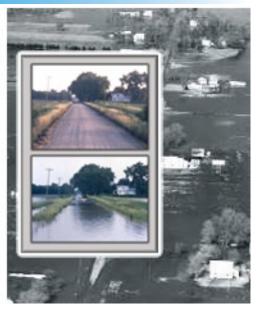
Since the onset the Nebraska of Large Area Mapping Initiative, the State

of Nebraska has mapped over 10,000 miles of rivers and streams at an average cost of \$30 per mile. Currently 33 counties, approximately half of the state's area, remain to be mapped. The Nebraska floodplain mapping team is delineating the 100-year floodplain at a rate of approximately 5 stream miles delineated per hour.

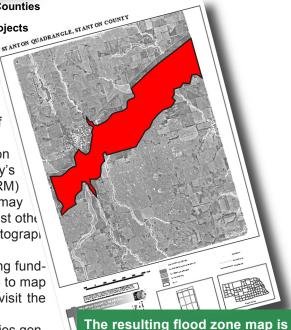
During the mapping process, NDNR produces most of the information necessary for the creation of the Federal Emergency Management Agency's (FEMA's) Approximate Zone A Digital-Flood Insurance Rate Map (D-FIRM) product. The resulting flood zone map is in an electronic format, and may be shown against aerial photographs, topographic maps, or shown against other features. For most purposes, plotting the flood zone against an aerial photograph gives the best result.

This process has been coordinated with FEMA and NDNR is receiving funding from FEMA under the Cooperating Technical Partners (CTP) program to map Nebraska counties. (For additional information regarding CTP, please visit the FEMA website at: http://www.fema.gov/mit/tsd/ctp_main.htm.)

NDNR will continue to map flood hazards in Nebraska based on priorities generated from the six criteria specified by the Legislature. Every Nebraska county is expected to have a countywide floodplain map by 2007. At that time, mapping efforts will be turned toward remapping counties that have inadequate maps.



The Nebraska floodplain mapping team is delineating the 100-year floodplain at a rate of approximately 5 stream miles delineated per hour.



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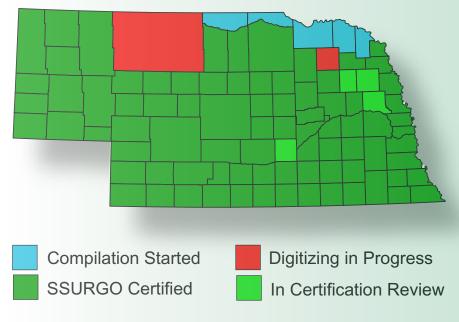
graphs, topographic maps, or

shown against other features.

Digitized Soil Surveys

By: Wayne Vanek

NRCS Soils Scientist Liaison to the Nebraska Department of Natural Resources



The individual county-by-county cooperative **SSURGO** (Soil Survey Geographic Database) project is nearly completed with 82 counties completed and certified, five counties awaiting certification, one county in progress, and five counties remaining to be digitized and certified.

The Nebraska Department of Natural Resources, USDA, Natural Resources Conservation Service and the University of Nebraska Conservation and Survey Division entered into a cooperative agreement back in April 1997 to create a statewide database of soil surveys of Nebraska. This is part of a National Initiative to digitize all published soil surveys across the nation and make them available in an electronic format. The main product of

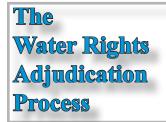
the database is a planemetrically correct, geo-referenced, soil map coverage and attributes. At the present time coverages are available at full quadrangle (western Nebraska), quarter quadrangle (eastern Nebraska), or complete county coverages.

As Nebraska's published soil surveys become out-of-print the digitized data is a very cost effective means to distribute the soils data to interested parties. Producing a digital product provides an effective means to update soil surveys that have become obsolete due to age or land-use changes. The soils digital database is an important layer in all aspects of land use management planning, modeling and decision-making processes. The soil layer can be overlain on Digital Ortho Photographs and with other GIS layers.

Joint Action Plan Process Continued from page 2

to contribute to conflicts, disputes, or difficulties from the DNR in 1997. The subsequent study was suspended during the proceedings of the lawsuit filed by Kansas. With the recent settlement of that case, the DNR was asked by the NRDs to resume the study, which is currently in the final stages.

The NPNRD and UNWNRD have also requested the DNR to make preliminary determinations. In both cases, the DNR issued its preliminary determination that the use of hydrologically connected ground water and surface water is or is likely to contribute to conflicts, disputes, or difficulties and initiated the study. The studies to determine the cause of the conflict, dispute, or difficulties and the extent of the areas affected are being conducted in cooperation with the NRDs. DNR staff recently held meetings with the NRDs' Board of Directors to outline the joint action process and to determine how to proceed in the best interests of the NRDs and the DNR.



The Department of Natural Resources (DNR) recently published a brochure explaining the process of examining water appropriations. State law requires the Nebraska Department of Natural Resources to, "as often as necessary," examine water appropriations to determine whether a water right is being utilized and is a valid appropriation, or whether the appropriation is subject to cancellation. Copies of this brochure are available upon request by contacting DNR or is available online at:

http://www.dnr.state.ne.us/SurfaceWater/AdjBrochure.pdf .

Approved Soil and Water Conservation Practices	Program Accomplishments in 2002	Total Program Accomplishments 1977-2002
Terraces	225 miles	11,026 miles
Terrace Underground Outlets	266,113 feet	4,579,905 feet
Water Impoundment Dams	15	1,286
Grade Stabilization Structures	12	660
Irrigation Tailwater Recovery Pits	0	858
Diversions	444,001 cu. yds.	1,535,915 cu.yds.
Grassed Waterways	140 acres	12,505 acres
Water and Sediment Control Basins	44	528
Dugouts for Livestock Water	14	629
Pasture or Range Seeding	3,630 acres	49,845 acres
Critical Area Plantings-Grass	380 acres	1,298 acres
Windbreaks	4,390 acres	37,109 acres
Windbreak Renovations	8 acres	3,726 acres
Irrigation Return Pipe	370 feet	544,790 feet
Planned Grazing Systems	127,237 acres	3,134,690 acres
*Irrigation Surge Valves	0	632
Irrigation Water Management	28,691 acres	192,832 acres
Repair of Practices	21	155
Stream Bank Stabilization	0	3
Republican Basin GW Meter Program	0 meters	1,713 meters
Republican Basin SW Meter Program	0 meters	82 meters
Republican Basin Water Meter Program	828 meters	896 meters
Water Mgt. Area Water Meter Program	183 meters	185 meters

The Nebraska Soil and Water Conservation Fund was established in 1977 to provide state financial assistance to Nebraska landowners installing approved soil and water conservation measures. Since 1977 the State of Nebraska has provided over \$64 Million in state cost-share assistance to Nebraska landowners. The fund is administered at the state level by the Nebraska Department of Natural Resources and is coordinated by the state's 23 Natural Resources Districts at the local level with technical assistance provided by the Natural Resources Conservation Service. For additional information on the Nebraska Soil and Water Conservation Fund, contact the Nebraska Department of Natural Resources.





NEW NRDF PROJECT PROPOSALS

By Tom Pesek

Two new project proposals were recently submitted to the Department of Natural Resources for Nebraska Resources Development fund assistance. The City of Ponca is sponsoring the Ponca Flood Control Project, which will serve to protect the community from flooding in excess of the 100-year discharge in Aowa Creek. The project includes an earthen levee, sluice gates on existing structures, new box culverts with sluice gates, and the improvement of an existing drainage ditch along with non-structural features including relocation, flood proofing, and flowage easements. The estimated total project cost is \$846,000; the sponsor has requested a NRDF grant of \$522,375 and a NRDF loan of \$110,475. FEMA funds may be available to cost-share the non-structural features of the project.

The Nemaha NRD has submitted a proposal for the Turkey Creek Watershed Project in the Pawnee City vicinity. Planned by the Natural Resources Conservation Service, this flood control project consists of five floodwater retarding structures ranging in size from 15 to 78 acres at conservation (normal) pool elevation. The project is estimated to reduce annual flood damages to crops, pasture, agricultural property, and roads and bridges by 30%. At this point the project has an estimated total cost of \$2,437,500 and the NRD is requesting a NRDF grant of \$1,771,575.

In a related matter, our Department was recently notified that the local sponsor was withdrawing its request for NRDF assistance for the Blue Creek Irrigation Rehabilitation Project. This proposed project involved the replacement of an earthen irrigation canal and laterals with buried PVC pipe. The inability of the Blue Creek Irrigation District and the Meeker Ditch Company to reach agreement on financing the project led to the decision to suspend the project. Project planning had been conducted by the Natural Resources Conservation Service, including the Panhandle RC&D office.



Ponca Flood Control Project



Nebraska Resources

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State of Nebraska

Mike Johanns, Governor

Nebraska

Department of Natural Resources

Roger K. Patterson, Director

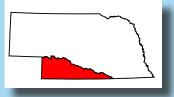
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Supreme Court Approves Republican River Settlement

By Jim Cook

On May 19, 2003 the United States Supreme Court approved the settlement negotiated by the States



of Nebraska, Kansas, and Colorado to resolve the Republican River litigation. No modifications to the provisions recommended by the states and by Special Master Vincent L. McKusick were made by the Court. A summary of the settlement provisions can be found in the Winter, 2003 issue of Nebraska Resources. The settlement documents can be reviewed in their entirety on the Department of Natural Resources website at:

http://www.dnr.state.ne.us.

Nebraska Department of Natural Resources....

....dedicated to the sustainable use and proper management of the State's natural resources.